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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,852	02/11/2004	Tadashi Shintani	TWA100USA	3887

270 7590 10/13/2004

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EXAMINER

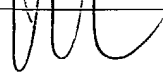
ESHETE, ZELALEM

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 10/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/776,852	Applicant(s) SHINTANI, TADASHI 	
	Examiner Zelalem Eshete	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimano et al. (5,216,984) in view of Ohnishi (3,969,949).

Shimano discloses a camshaft drive for an engine (see figure 1) comprising: crankshaft sprocket (see numeral 9); large and small camshaft sprockets in coaxial relationship with each other, and fixedly connected to each other rotation together about a first axis (see numerals 11,12); third camshaft sprocket, spaced laterally from said large and small camshaft sprockets, and rotatable about a second axis parallel to said first axis (see numeral 14); driving chain wrapped around the crankshaft sprocket and said large camshaft sprocket, for transmitting rotational power from the crankshaft sprocket to said large camshaft sprocket (see numeral 7); and driven chain wrapped around said small camshaft sprocket and said third camshaft sprocket, for transmitting rotational power from said small camshaft sprocket to said third camshaft sprocket (see numeral 15).

Shimano discloses the claimed invention except for specifying the strength/pitch of the driven chain is less than that of the driving chain.

Art Unit: 3748

Ohnishi teaches the proportional relationship between the pitch and strength of chain (see figures 15,16).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the strength of the chains depending on the loading requirements of the chains, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. In addition, it would have been obvious to accordingly vary the pitch as taught by Ohnishi in order to meet the greater strength requirement with greater chain pitch.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okui et al. (6,250,266) in view of Ohnishi (3,969,949).

Okui discloses a camshaft drive for an engine (see figure 1) comprising: crankshaft sprocket (see adjacent numeral 13); large and small camshaft sprockets in coaxial relationship with each other, and fixedly connected to each other rotation together about a first axis (see adjacent numeral 22); third camshaft sprocket, spaced laterally from said large and small camshaft sprockets, and rotatable about a second axis parallel to said first axis (see adjacent numeral 21); driving chain wrapped around the crankshaft sprocket and said large camshaft sprocket, for transmitting rotational power from the crankshaft sprocket to said large camshaft sprocket (see numeral 29); and driven chain wrapped around said small camshaft sprocket and said third camshaft

Art Unit: 3748

sprocket, for transmitting rotational power from said small camshaft sprocket to said third camshaft sprocket (see numeral 35).

Okui discloses the claimed invention except for specifying the strength/pitch of the driven chain is less than that of the driving chain.

Ohnishi teaches the proportional relationship between the pitch and strength of chain (see figures 15,16).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the strength of the chains depending on the loading requirements of the chains, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. In addition, it would have been obvious to accordingly vary the pitch as taught by Ohnishi in order to meet the greater strength requirement with greater chain pitch.

Response to Arguments

4. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 3748

Conclusion

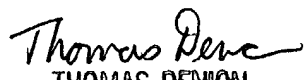
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zelalem Eshete whose telephone number is (703) 306-4239. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (703) 308-2623. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Zelalem Eshete
Examiner
Art Unit 3748

Z


THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700